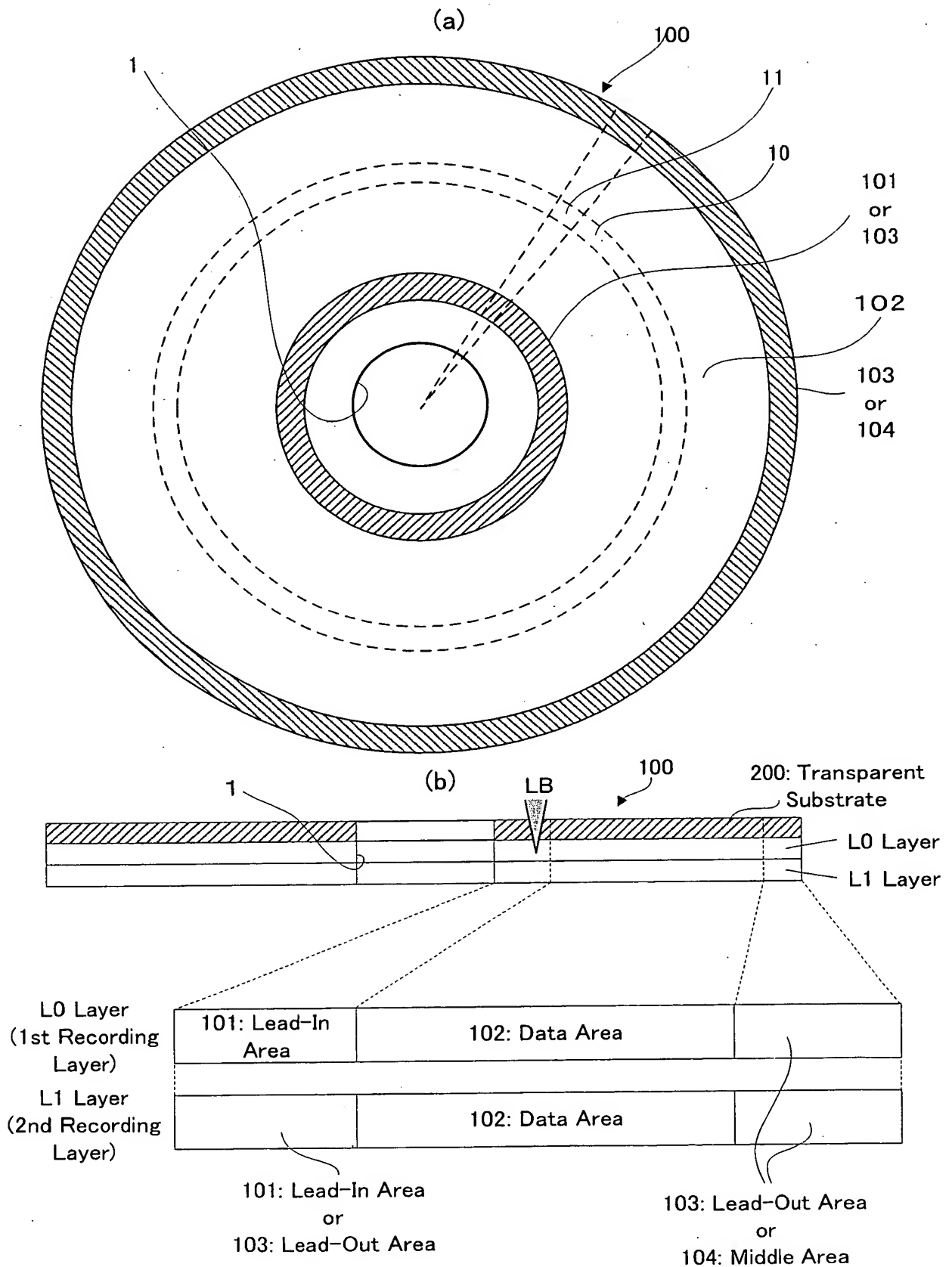
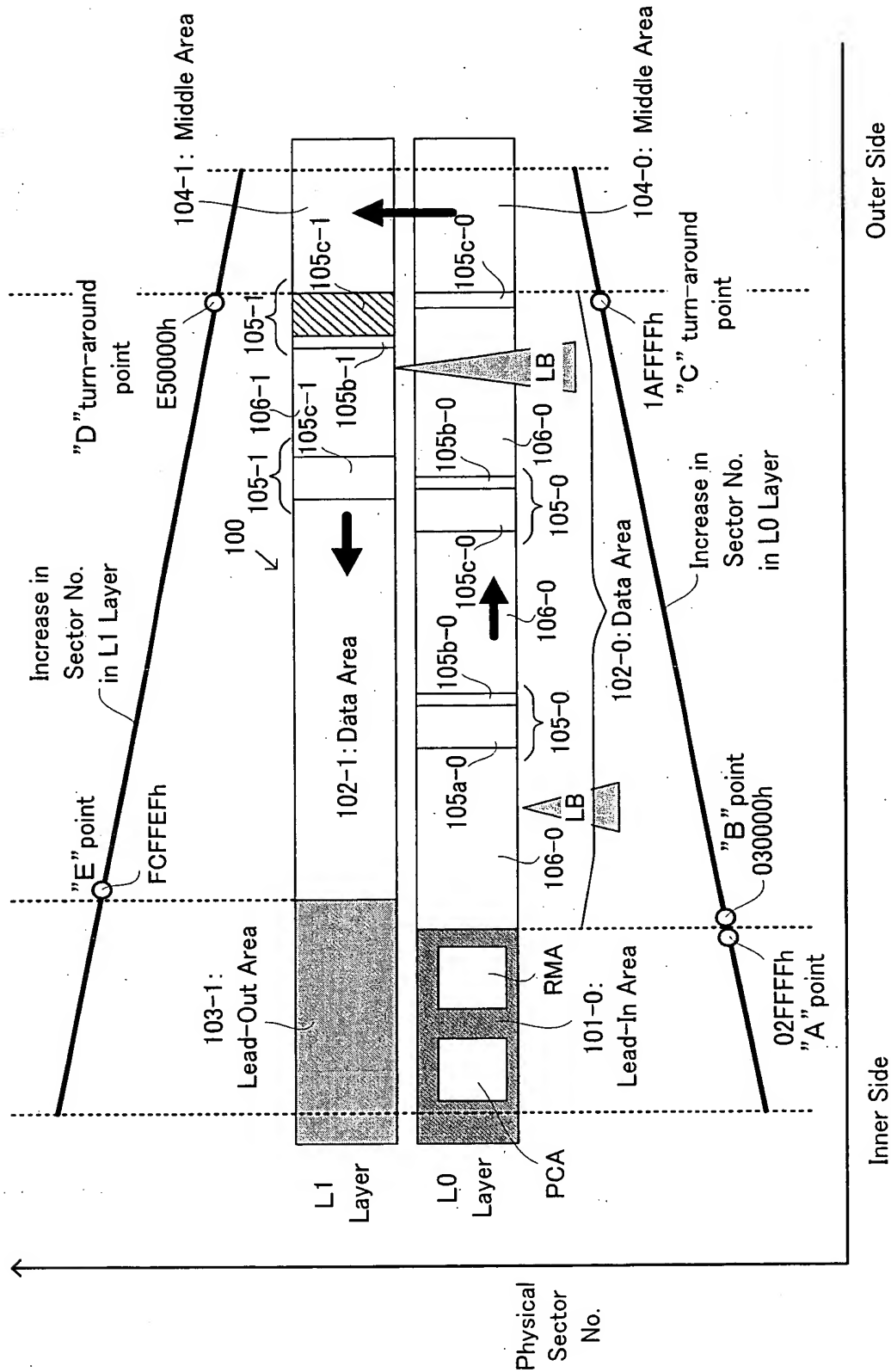


[FIG. 1]



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[FIG. 2]



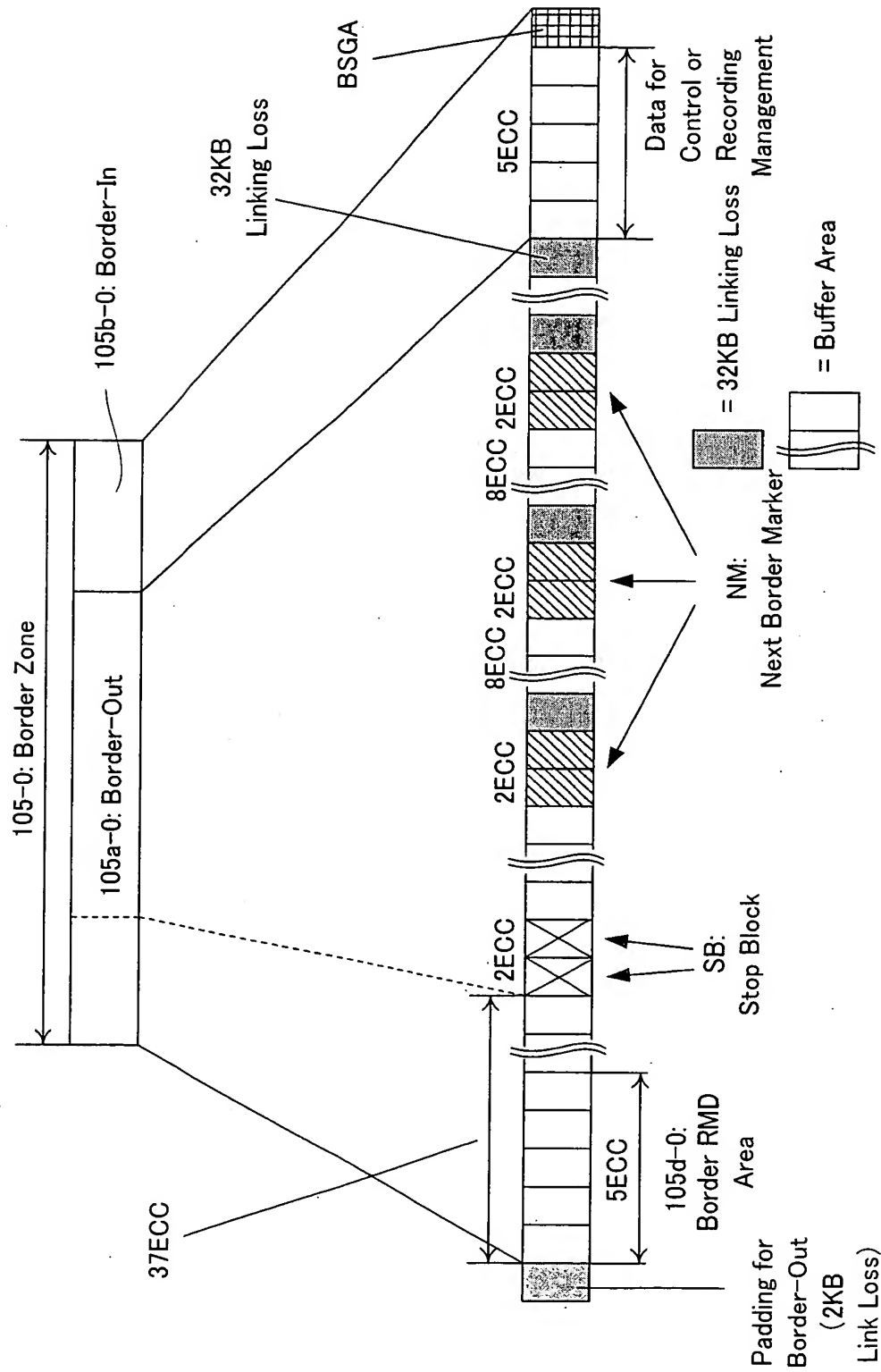
The diagram illustrates a disk layout with two main layers: L1 Layer and L0 Layer. The L1 Layer is divided into sectors 105c-1, 106-1, 105-1, 105c-0, 106-0, 105-0, 105c-1, 106-1, 105-1, 105c-0, 106-0, and 105-0. The L0 Layer is divided into sectors 105a-0, 106-0, 105-0, 105b-0, 106-0, 105c-0, 105b-0, 106-0, 105c-0, 105b-0, 106-0, and 105c-0. The PCA (Physical Sector Number) is shown as a sequence of sectors: 105c-1, 106-1, 105-1, 105c-0, 106-0, 105-0, 105c-1, 106-1, 105-1, 105c-0, 106-0, and 105-0. The diagram also shows the L1 Layer Lead-In Area (101-1) and the L0 Layer Lead-In Area (101-0). The L1 Layer Lead-In Area is divided into sectors 105c-1, 106-1, 105-1, 105c-0, 106-0, 105-0, 105c-1, 106-1, 105-1, 105c-0, 106-0, and 105-0. The L0 Layer Lead-In Area is divided into sectors 105a-0, 106-0, 105-0, 105b-0, 106-0, 105c-0, 105b-0, 106-0, 105c-0, 105b-0, 106-0, and 105c-0. The diagram also shows the L1 Layer Lead-Out Area (103-1) and the L0 Layer Lead-Out Area (103-0). The L1 Layer Lead-Out Area is divided into sectors 105c-1, 106-1, 105-1, 105c-0, 106-0, 105-0, 105c-1, 106-1, 105-1, 105c-0, 106-0, and 105-0. The L0 Layer Lead-Out Area is divided into sectors 105a-0, 106-0, 105-0, 105b-0, 106-0, 105c-0, 105b-0, 106-0, 105c-0, 105b-0, 106-0, and 105c-0. The diagram also shows the L1 Layer Lead-In Area (101-1) and the L0 Layer Lead-In Area (101-0). The L1 Layer Lead-In Area is divided into sectors 105c-1, 106-1, 105-1, 105c-0, 106-0, 105-0, 105c-1, 106-1, 105-1, 105c-0, 106-0, and 105-0. The L0 Layer Lead-In Area is divided into sectors 105a-0, 106-0, 105-0, 105b-0, 106-0, 105c-0, 105b-0, 106-0, 105c-0, 105b-0, 106-0, and 105c-0. The diagram also shows the L1 Layer Lead-Out Area (103-1) and the L0 Layer Lead-Out Area (103-0). The L1 Layer Lead-Out Area is divided into sectors 105c-1, 106-1, 105-1, 105c-0, 106-0, 105-0, 105c-1, 106-1, 105-1, 105c-0, 106-0, and 105-0. The L0 Layer Lead-Out Area is divided into sectors 105a-0, 106-0, 105-0, 105b-0, 106-0, 105c-0, 105b-0, 106-0, 105c-0, 105b-0, 106-0, and 105c-0.

[FIG. 4]

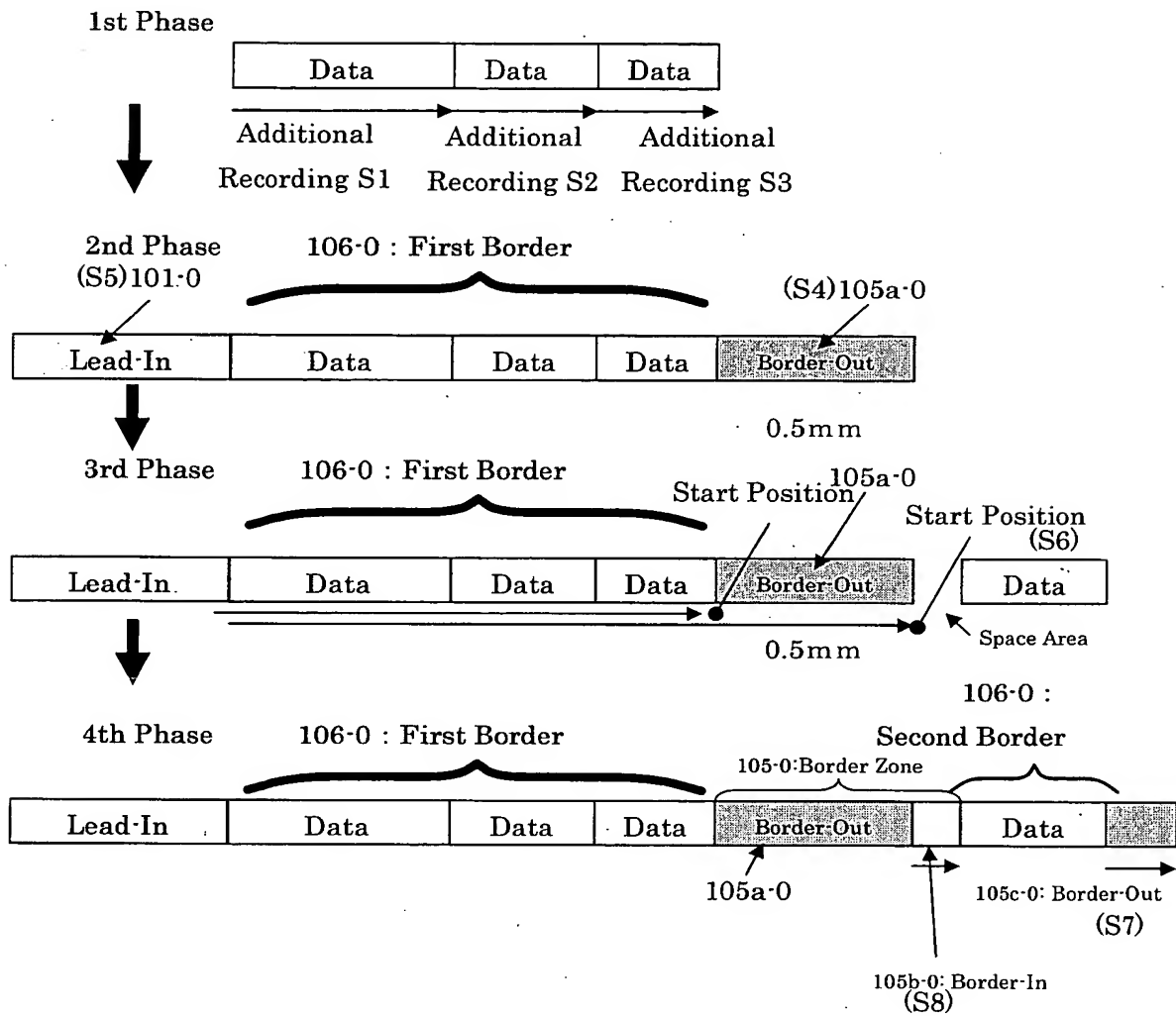
Sector Number of Start Position of Border Zone	3FF00h~B25FFh (Inner)	B2600h~1656FFh (Middle)	165700h~ (Outer)
First Border Zone	1792 ECC 56MBytes	2368 ECC 74MB	2944 ECC 92MB
Second or more Border Zone	384ECC 12MB	480 ECC 15MB	608 ECC 19MB

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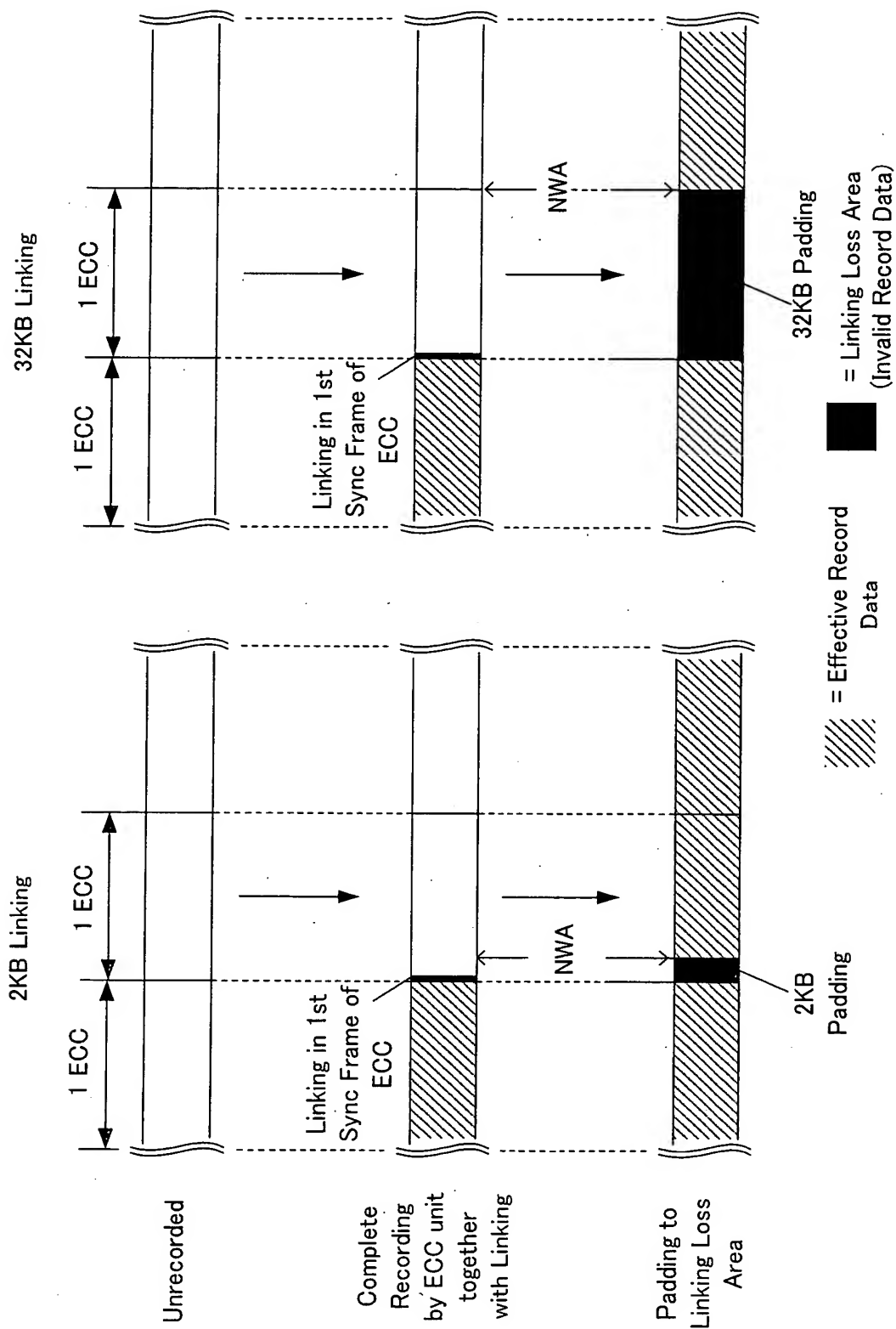
[FIG. 5]



[FIG. 6]

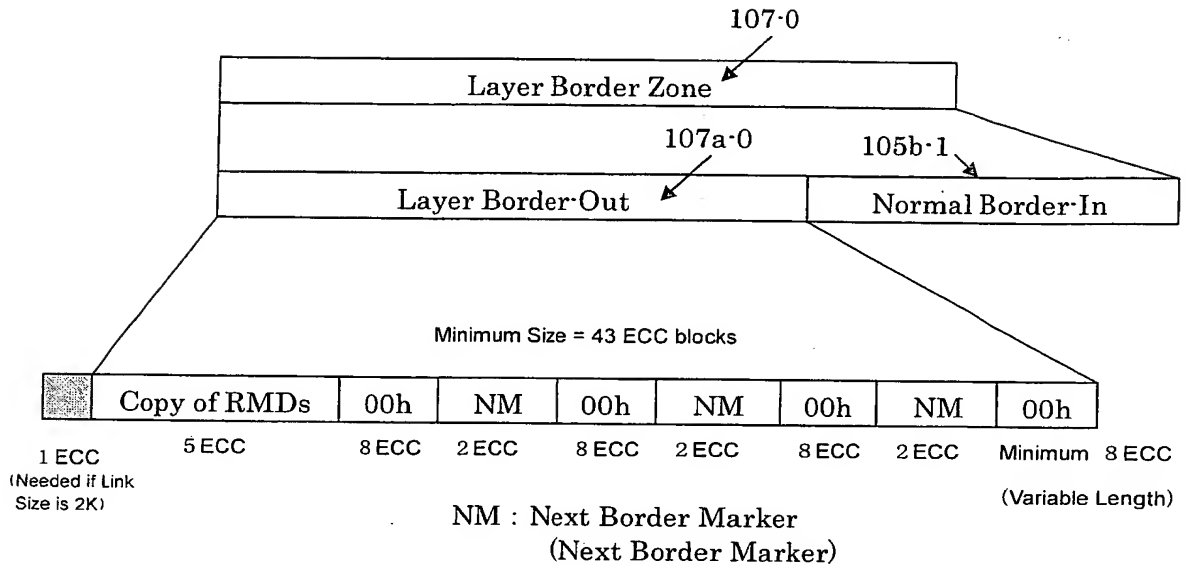


[FIG. 7]

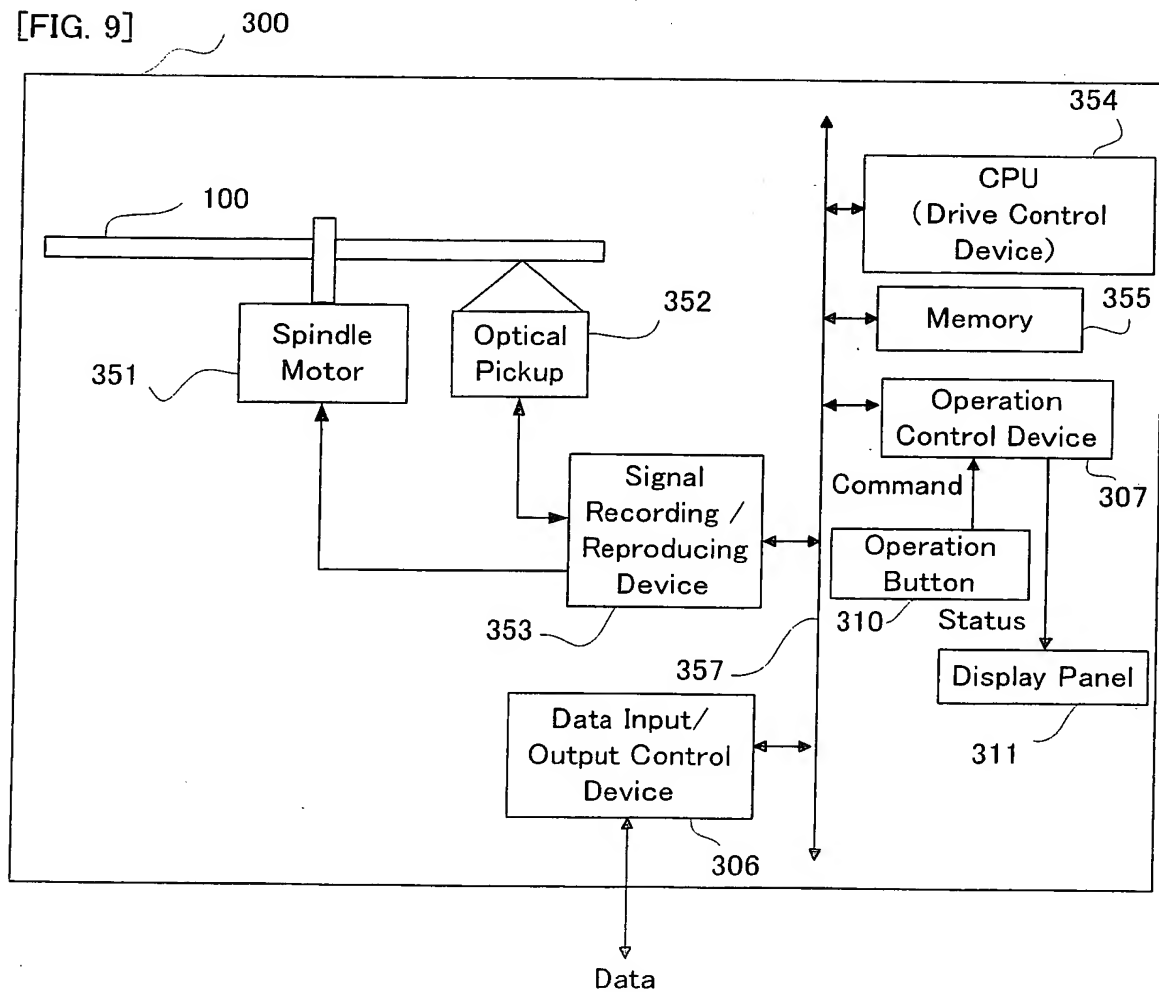


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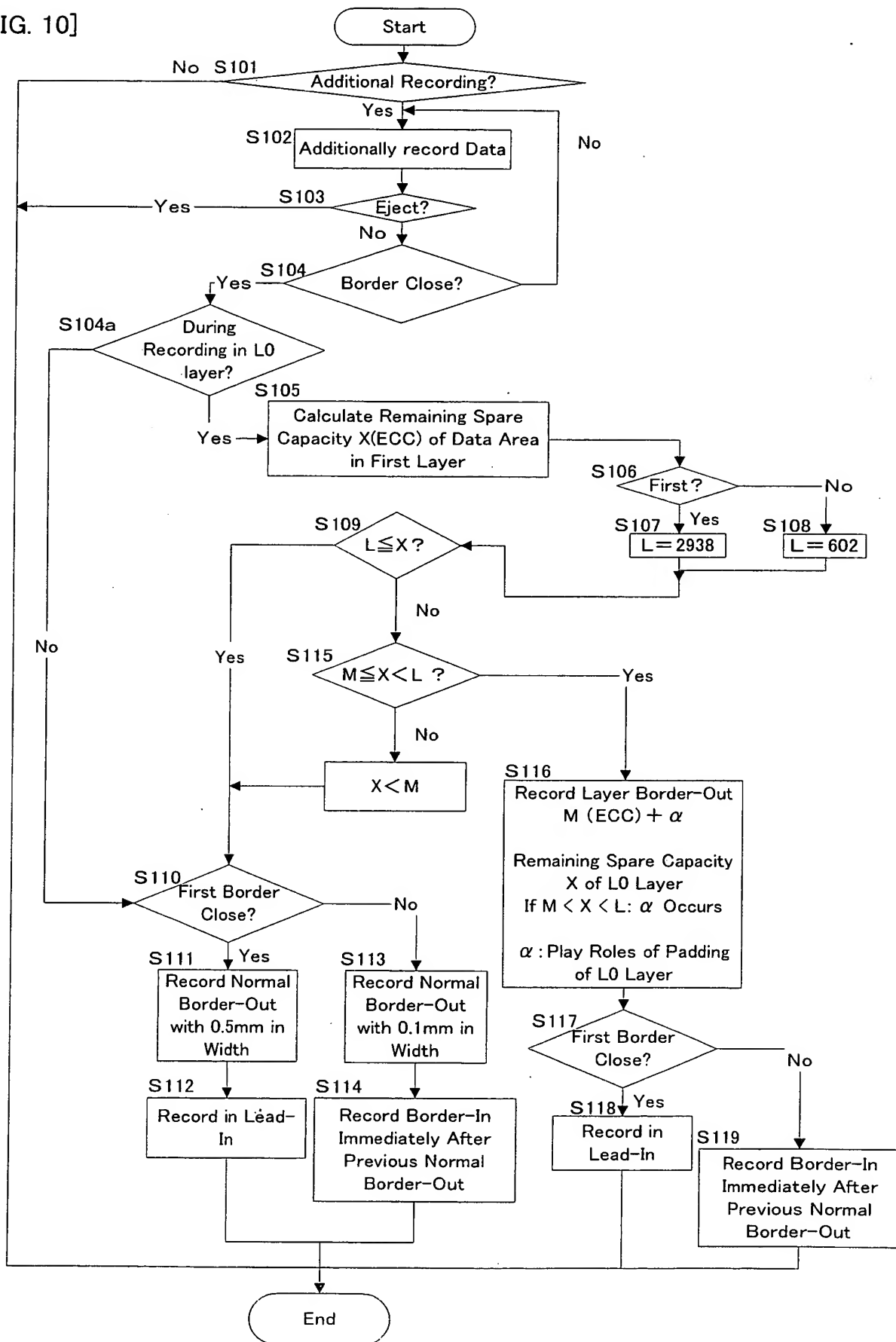
[FIG. 8]



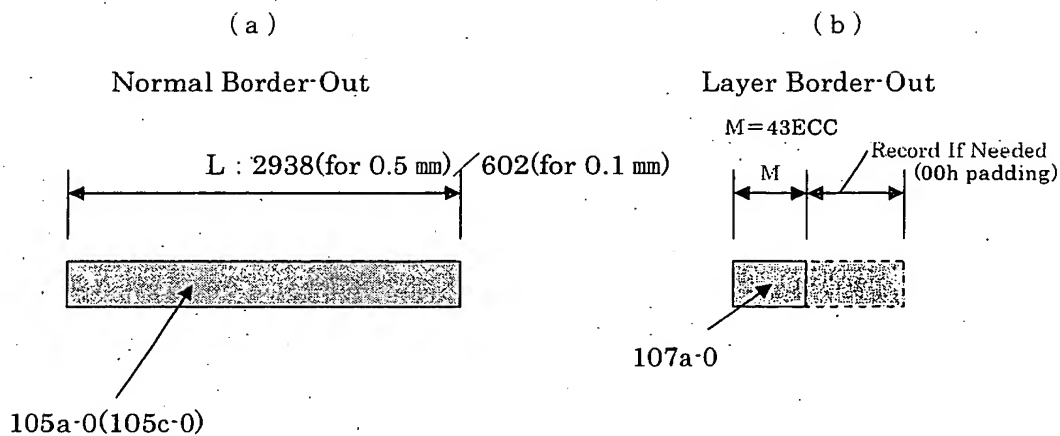
[FIG. 9]



[FIG. 10]

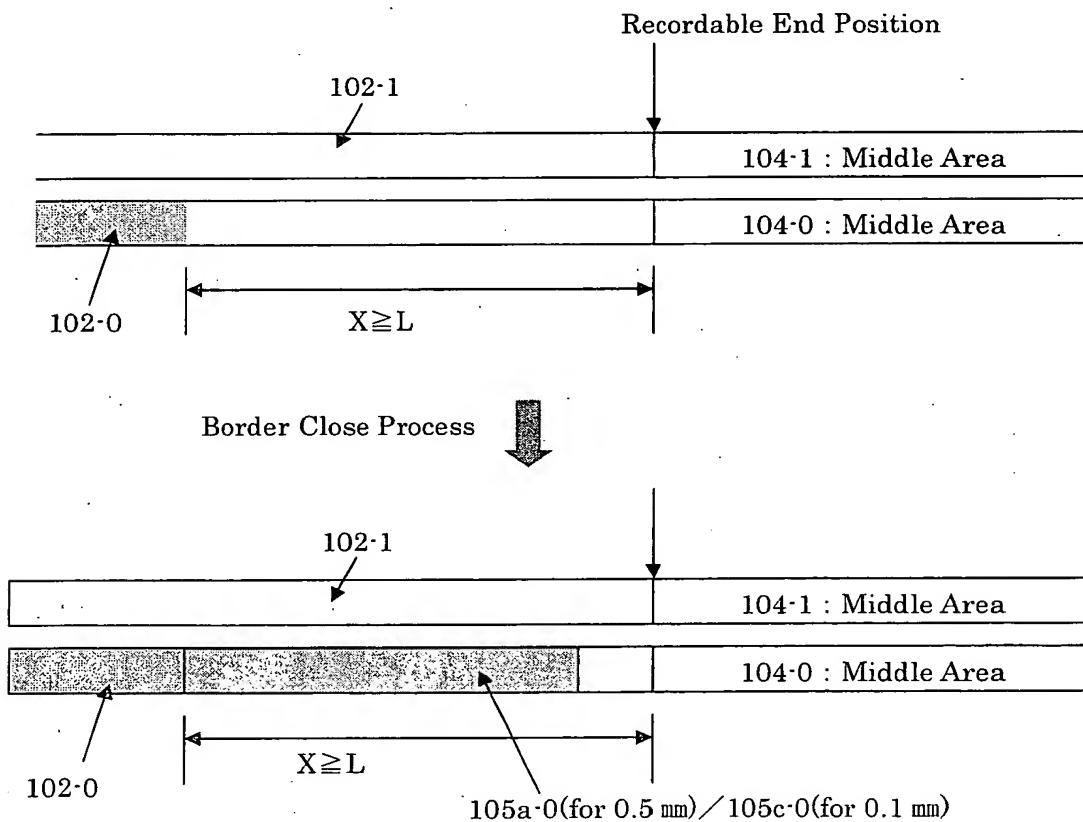


[FIG. 11]



[FIG. 12]

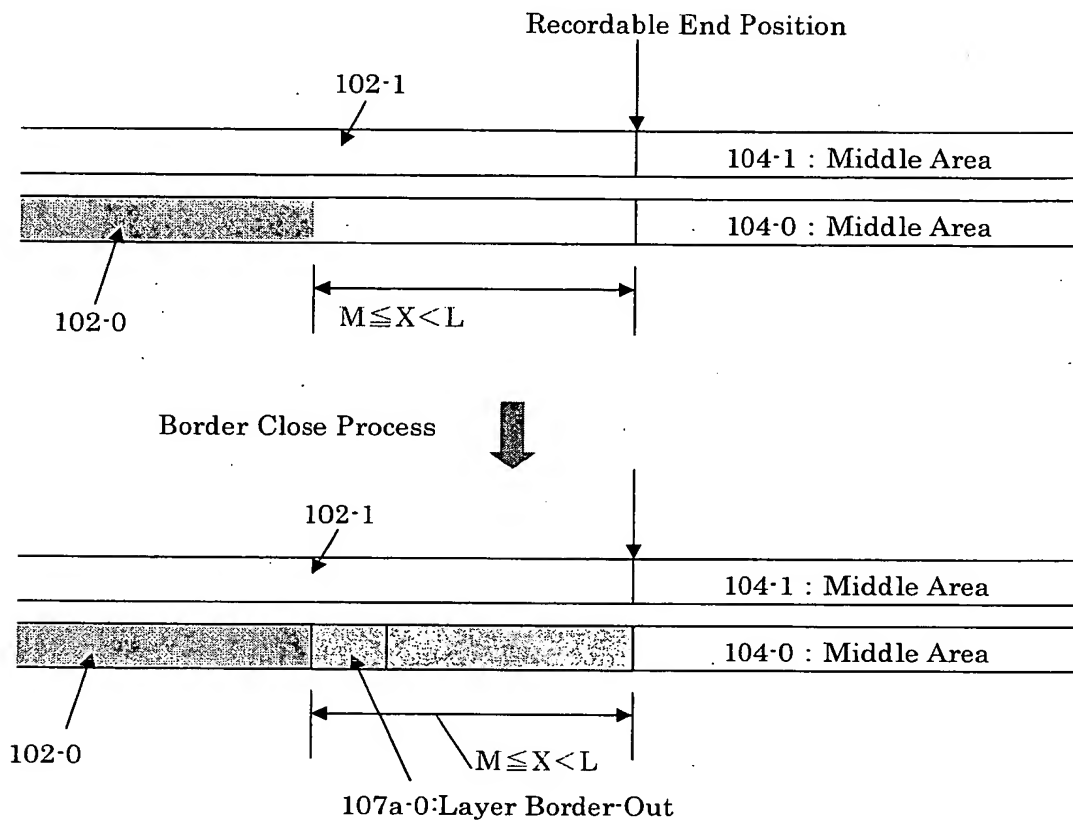
$L \leq \text{Spare Capacity "X" of Data Area in L0 Layer}$



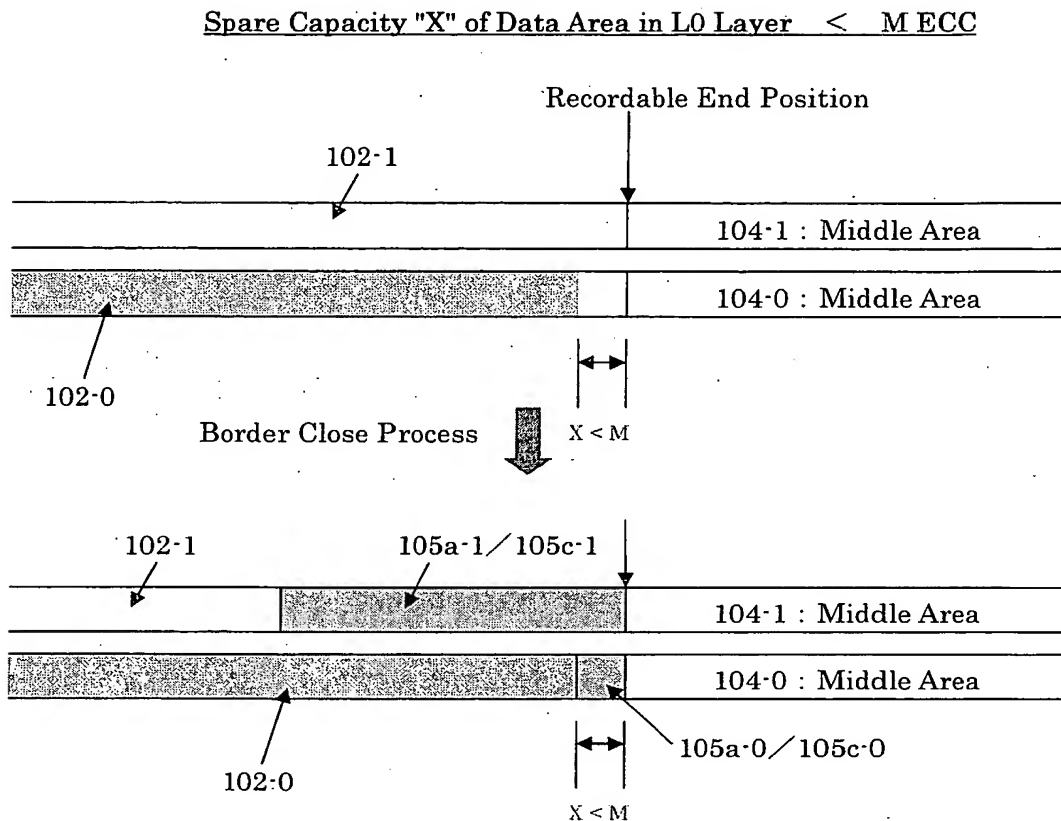
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[FIG. 13]

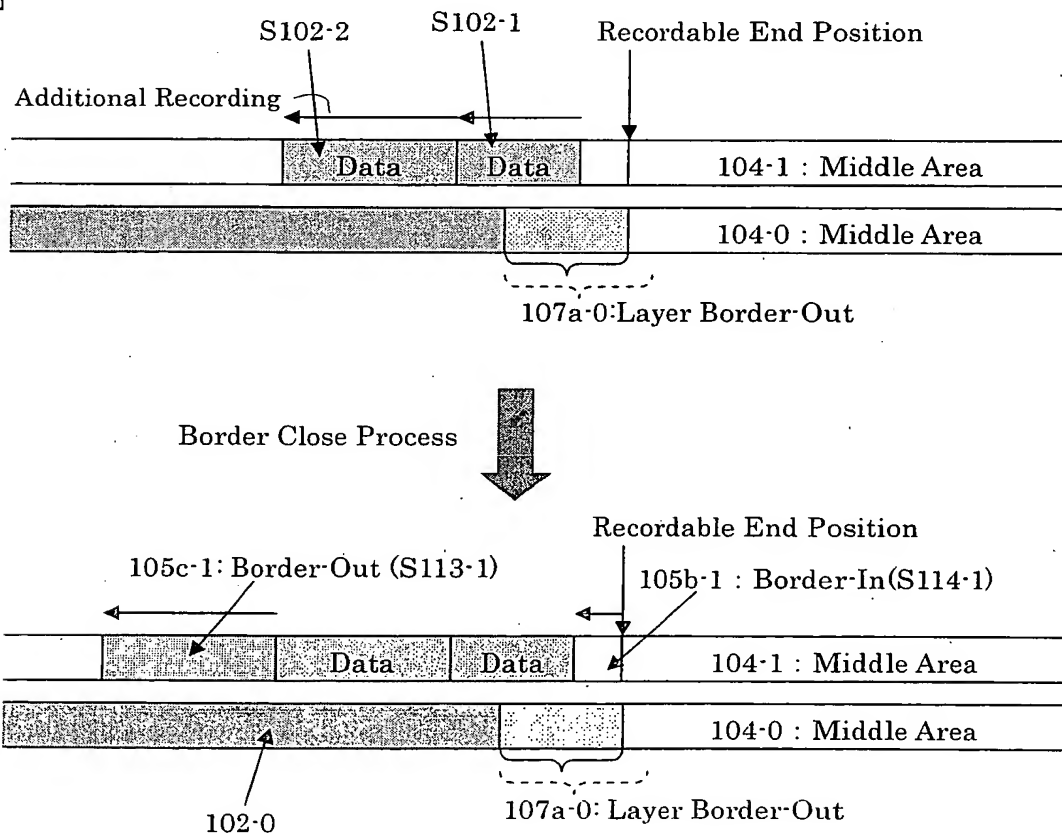
$M \text{ ECC} \leq \text{Spare Capacity "X" of Data Area in L0 Layer} < L$



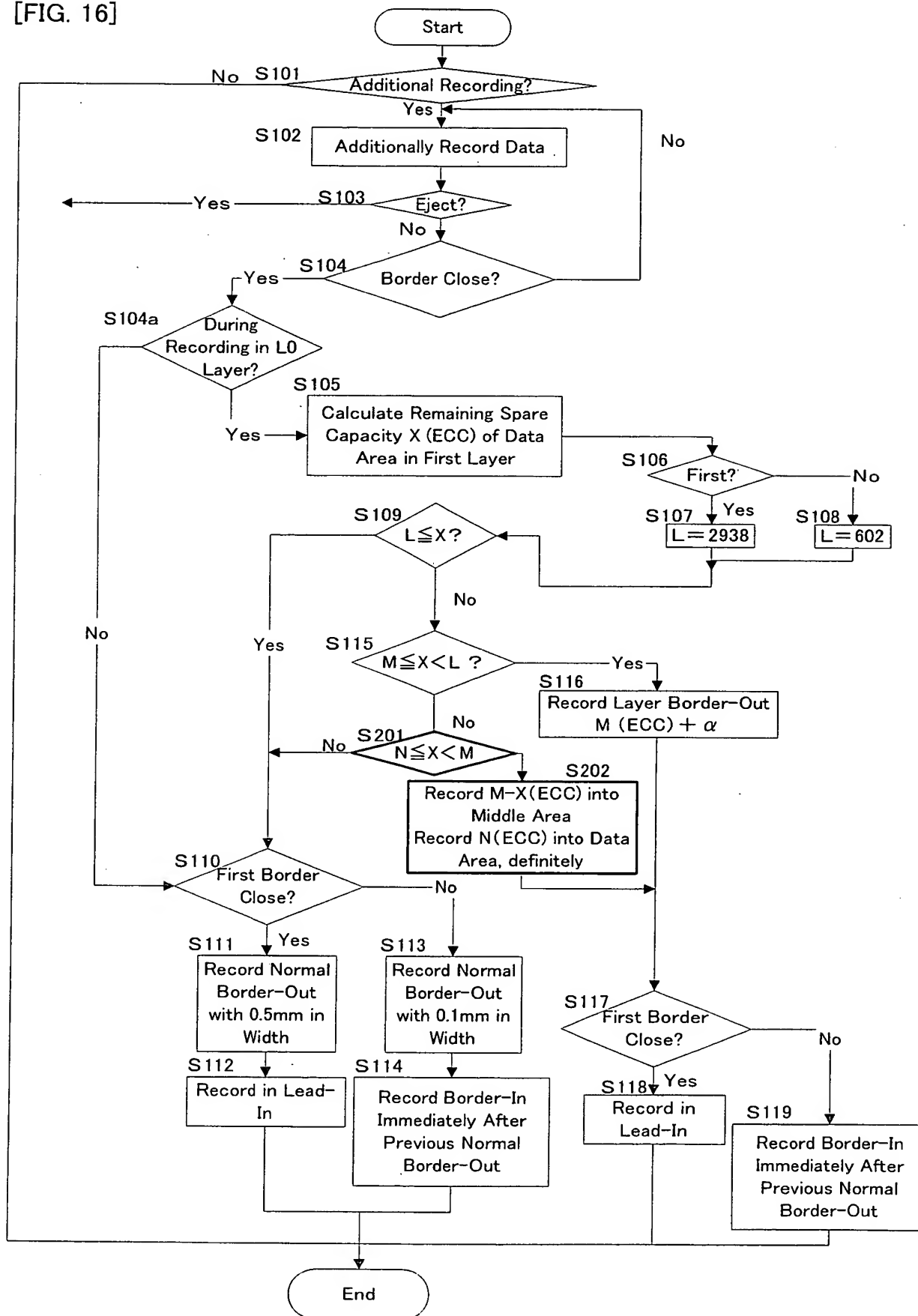
[FIG. 14]



[FIG. 15]

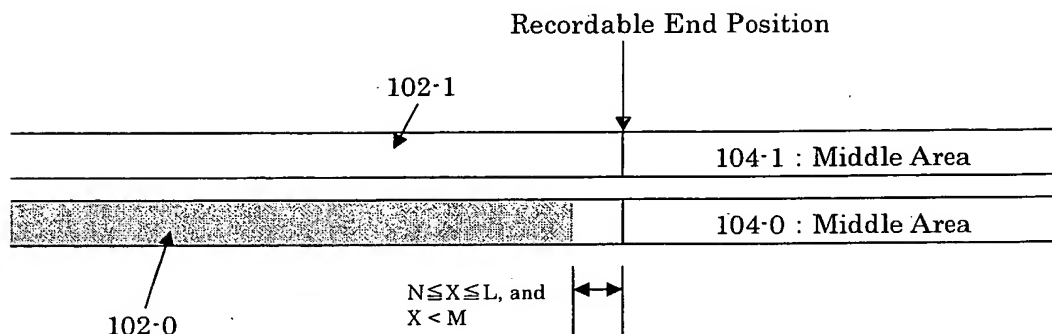


[FIG. 16]

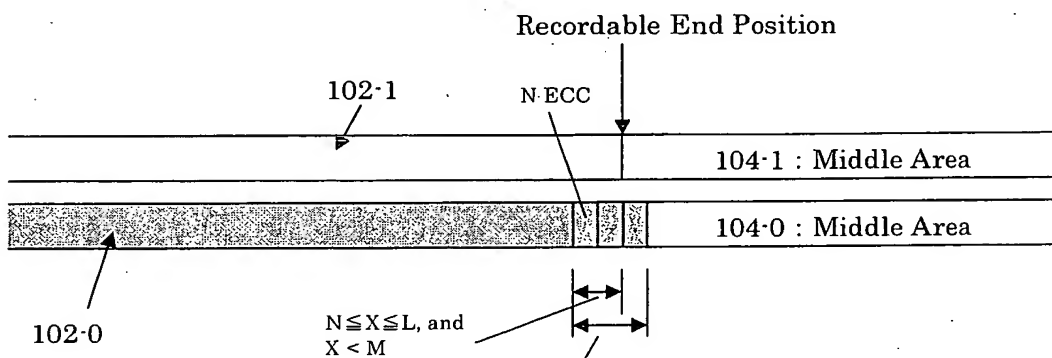


[FIG. 17]

$$N \text{ ECC} \leq \text{Spare Capacity of Data Area in L0 Layer} < L$$



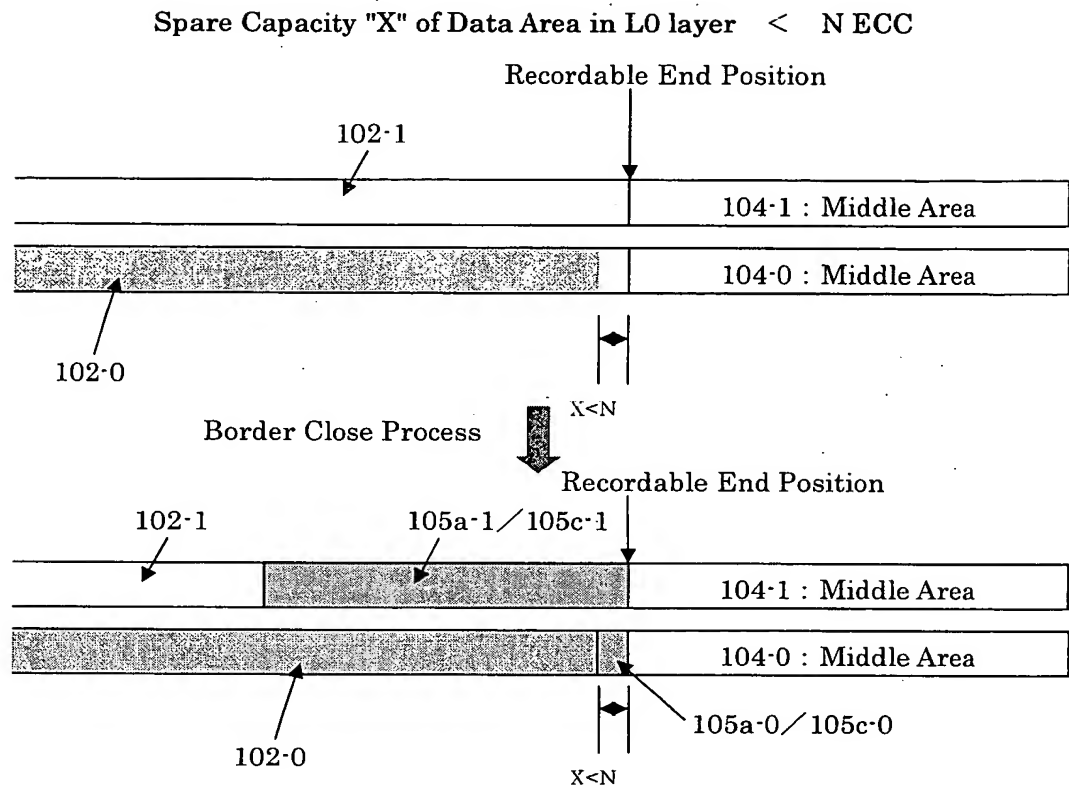
Border Close Process



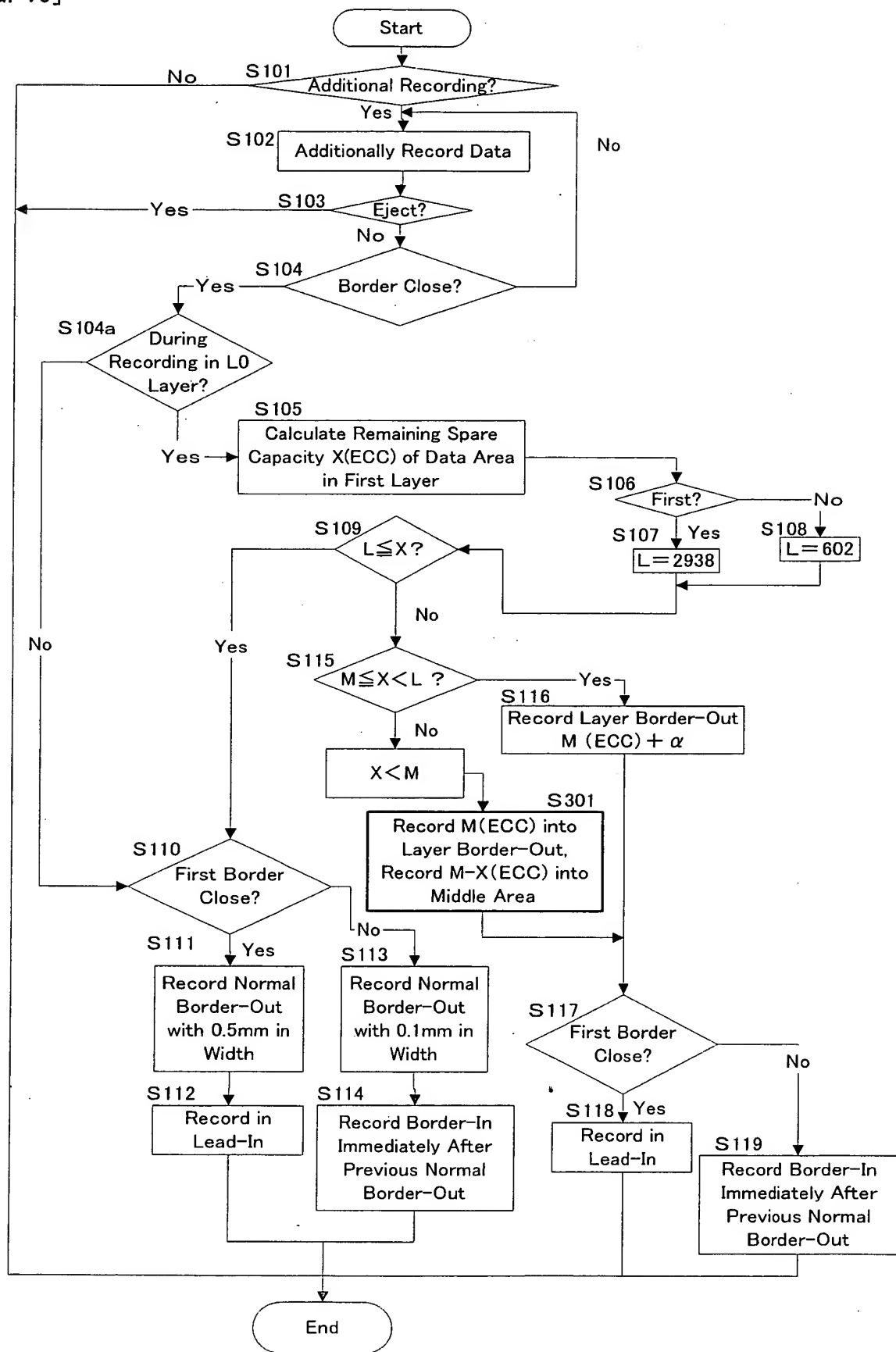
107a-0 : Layer Border-Out :MECC

Record Data Attribute of Protrusion into Middle Area, as Middle Area

[FIG. 18]



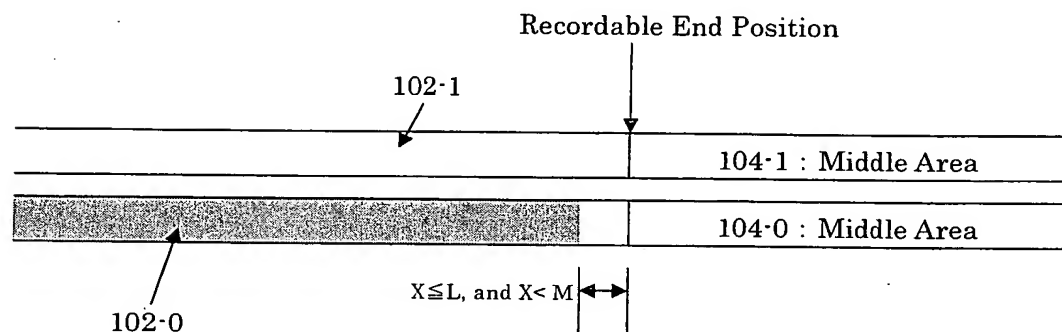
[FIG. 19]



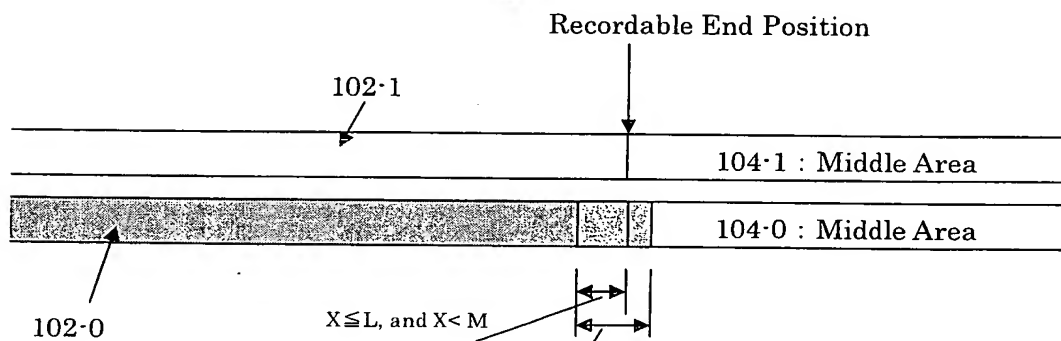
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[FIG. 20]

$N \text{ ECC} \leq \text{Spare Capacity of Data Area in LO Layer} < L$



Border Close Process



107a-0: Layer Border-Out :MECC

Record Data Attribute of Protrusion into Middle Area, as Middle Area